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HUMAN FERTILISATION AND EMBRYOLOGY AUTHORITY

EGG DONATION

Introduction

You have asked for information about donating eggs, either to help another woman become pregnant or for use in research. This leaflet explains some of the reasons why egg donation is needed and answers some of the questions you may want to ask.

Treatment and research using donated eggs is licensed and regulated by the Human Fertilisation and Embryology Authority (HFEA) under the terms of the Human Fertilisation and Embryology Act 1990.

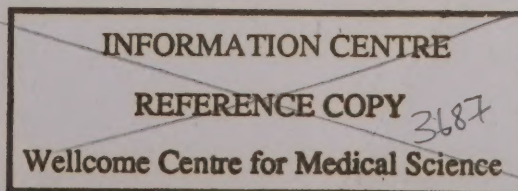
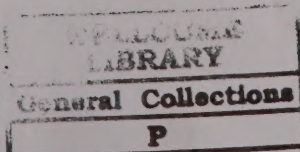
Why is egg donation needed?

Some couples are infertile because the woman is unable to produce eggs (also called oocytes). This may occur because her ovaries have never developed properly (e.g. Turner's Syndrome), because of ovarian failure (premature menopause) or because surgery or chemotherapy has caused her to be sterile. For these couples *in vitro fertilisation* (IVF) - often referred to as the "test-tube baby technique" - using donated eggs offers their only chance of achieving a pregnancy.

Some women are carriers of sex-linked diseases such as Duchenne's muscular dystrophy or haemophilia; these diseases are passed on by females but only boys are affected. Rather than risk giving birth to a child who may suffer greatly and die at an early age, the woman may request egg donation. The donated egg would be fertilised by her husband's sperm and the couple would be given the chance of having a healthy child. (A technique is now being developed which will enable the woman's own eggs to be fertilised in the laboratory and tested to find out whether they are affected by the disease in question; only those which are free of the disease would then be replaced. This technique is still in the very early stages, however, and it will be some time before the test is readily available.)

IVF was developed following many years of research; more research is required to improve the success rate of IVF and other treatments for infertility. Some embryos (eggs which have been fertilised) which are "spare" from IVF treatment are available for research but the number is limited. This research has five main aims:

- i. to promote advances in the treatment of infertility;
- ii. to increase knowledge about the causes of congenital abnormalities (defects present at birth);
- iii. to increase knowledge about the causes of miscarriage;
- iv. to develop more effective methods of contraception;
- v. to develop methods for detecting the presence of gene or chromosome abnormalities in embryos before implantation.



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There are some types of research which cannot be carried out on these "spare" embryos but only on donated eggs during fertilisation *in vitro*. There are research projects which involve fertilisation itself. These include the freezing of eggs, the development of a contraceptive vaccine and the development of techniques to inject sperm directly into the egg for use in cases of male infertility where sperm cannot penetrate eggs in the normal way.

Who will benefit from it?

Eggs donated for the treatment of others benefit women who are unable to produce their own eggs and who are carriers of sex-linked diseases.

Eggs donated for research purposes could potentially help many thousands of people by improving treatment of infertility and methods of contraception, increasing knowledge of miscarriage and congenital abnormalities and developing techniques for the diagnosis of genetic diseases before embryos are replaced in a woman.

Who are potential donors?

Patients undergoing IVF or GIFT (Gamete Intrafallopian Transfer - another form of infertility treatment) who have produced more eggs than they need for their own treatment, and have chosen to donate them for the treatment of others.

Volunteer donors.

Women undergoing sterilisation or other related surgery.

Relatives or friends of recipients.

Are there any age limits?

Eggs will not be taken for the treatment of others from women under the age of 18 or from women over the age of 35 (unless there are exceptional circumstances).

Will donors remain anonymous?

There is a requirement for donors' names to be given to the Authority to hold on its information register. Non-identifying information about donors will also be held on the register (eg. eye colour, hair colour, occupation). Under the Human Fertilisation & Embryology Act, regulations may be made by the Government in the future allowing the Authority to disclose information about donors (possibly including their names) to offspring who apply when they become adults. However, these regulations are not expected to be made in the near future and will only apply to information about donors who give eggs after the date they take effect. Current donors will therefore remain anonymous and improper disclosure of donors' identities from the HFEA register is a criminal offence under the Act.

Will donors have a continuing responsibility to any child born following the donation?

No, donors have no relationship in law with any child resulting from treatment using eggs that they have donated.

What tests are done before women are accepted as egg donors?

This varies between centres, but all donors will be tested for hepatitis B and HIV antibodies (AIDS). Donors should discuss with the clinician or counsellor what information they wish to be given following these tests.

What does egg donation involve?

In a woman's normal menstrual cycle several follicles (little sacs of fluid each containing one egg) begin to grow but only one grows enough to release an egg. Although it is possible to donate this one ripe egg, most centres prefer to give egg donors medication to stimulate their ovaries so that more eggs can be obtained on one occasion.

Egg development is usually monitored by ultrasound scanning, which enables a picture to appear on a screen, showing the ovaries containing the follicles. Hormone levels in the blood may also be measured to monitor egg development.

The eggs are collected using two main techniques. The first is by laparoscopy, for which a general anaesthetic will normally be necessary. A small cut is made just below the navel for the laparoscope (an instrument for looking into the abdomen) to be inserted and a needle is inserted separately to remove the eggs. Laparoscopy is frequently used to perform sterilisation. If eggs are donated at the same time as sterilisation, no additional operative procedures will be required.

The second and more common technique is by using a needle guided by ultrasound. This may be done under a general anaesthetic or more probably a mild sedative. A fine hollow needle is passed either through the bladder, urethra or vagina into each follicle in turn, and the fluid containing the egg is sucked out of each follicle through the needle. If the ovaries are abnormally situated, it may sometimes be necessary to pass a needle under ultrasound guidance through the abdominal wall.

What medication will be given?

Hormone drugs will be given to stimulate the ovaries to produce more than one egg, to control the monthly cycle and to mature the eggs.

What are the risks and possible side-effects?

i. Medication

There can be side-effects which last while taking the medication. They are uncommon but may consist of hot flushes, weight gain due to salt and water retention similar to period discomfort, and restlessness at night.

Despite careful monitoring, in some women the response to superovulatory drugs may be excessive resulting in the development of a large number of eggs which causes the ovaries to swell. In some cases cysts develop which may be painful but usually subside with bedrest. The symptoms of severe ovarian hyperstimulation syndrome include: nausea, vomiting, pain, abdominal swelling and shortness of breath. In the majority of cases, rest, drinking plenty of fluids and taking simple pain relievers are all that is needed but in severe cases admission to hospital may be required. It is estimated that approximately 7% of those receiving superovulatory drugs experience mild symptoms and 1-2% of women experience severe hyperstimulation requiring treatment.

ii. Egg collection

Women undergoing ultrasound-directed egg recovery may notice a small amount of blood in their urine or from their vagina for a day afterwards. This is quite common and should not cause concern.

Laparoscopy carries the usual minor risks and side-effects of any procedure requiring a general anaesthetic. Most women have very little discomfort and no pain after laparoscopy. Some women experience soreness in the stomach, chest or shoulders, or vaginal bleeding for a few days after the operation.

Will any part of the procedure be painful?

Following laparoscopy there may be some abdominal pain which is similar to that of a painful period. The pain usually disappears in a short time. The operation to remove eggs under ultrasound should not be painful because pain killing drugs can be given before the procedure. It is uncommon to experience any pain after the operation is over.

Will counselling be available?

All centres are required to offer counselling. Donors should ensure that they are given and have understood sufficient information to make an informed decision. If in any doubt about any of the procedures or the ethical aspects, they should ask.

Are there any other factors which donors should be aware of?

A child born disabled as a result of a donor's failure to disclose inherited diseases in her family about which she knew, or ought reasonably to have known, may be able to sue the donor for damages. However, provided donors are open and honest about their medical and family history this is highly unlikely.

What will happen if a donor changes her mind?

Under the Human Fertilisation and Embryology Act donors must give valid consent to the use and storage of their eggs, and of the embryos produced using their eggs. This consent is given by completing and signing a form supplied by the Authority. The consent to use may be specific to particular embryos if the donor wishes (eg she may wish some eggs to be used for treatment and some for research, or all to be used for treating a particular woman). For this consent to be valid, the donor must have received adequate information about egg donation and must have been offered counselling before she signs the form. This consent may be withdrawn or varied at any time except in respect of an embryo which has already been used.

Donors will also be asked to consent to the egg retrieval procedure. Donors are free to withdraw consent to the egg retrieval at any time before the operation. If donors are undergoing sterilisation or other related surgery, that operation will still be performed on the terms already agreed.

